

Wheat

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WP1 Core collections & seed multiplication

Task 1.1 – Identification of genetic material

October 2018 – too late!

Winter common wheat – each partner

Durum wheat – winter/spring – UNITUS, MTA, BOKU + ?

Task 1.2 – Multiplication of genetic material

(April 2020)



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WP2 Wheat

Task 2.1 – Screening of genetic resources & breeding material

May 2019 – April 2022

Nurseries: **WEST:** US, DE, CZ, SK

EAST: SK, HU, RS, RO

DURUM: IT, AT, HU

Genotypes: 40-50 Checks (incl. PGR), 30-40 breeding lines

Plot size: 1.5 m² - 7 m²



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WP2 Wheat

Task 2.2 – AMF compatibility evaluation

May 2019 – April 2021

UNEW - BOKU

Task 2.3 – Allelopathic activity screening

May 2019 – April 2022

UVIGO – UNEW → input from breeders

WP2 Wheat

Task 2.3 – MAS

May 2019 – April 2022

Bunt resistance

CORE Organic II COBRA project → Identification of resistance sources:

Bonneville, Blizzard, PI 119333 → mapping populations with ‘Rainer’

2017: crosses of resistant lines: Alessio, Amicus, Arnold, Capo, Genius,

Kolompos, Midas, Spontan, **Tilliko, Tommi**

2018: 3-way crosses: Arminius, Aurelius, Bernstein, Christoph, Ehogold, Midas,

Spontan, RGT Reform, **Tillexus, Tillstop, Toras, UI SRG**



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WP2 Wheat

Task 2.3 – MAS

May 2019 – April 2022

Bunt resistance

Further resistance sources: NARDI: Bt10 + *Secale cereale*

CRI: regular tests by Veronika

WP2 Wheat

Task 2.3 – MAS

May 2019 – April 2022

Protein content

Introgression of *Gpc-B1* and evaluation of its effect in European germplasm

Crosses/lines available at SECOBRA, NARDI & BOKU

Further targeted crosses of *Gpc-B1* lines with high & low protein genotypes from WEST & EAST germplasm



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WP2 Wheat

Task 2.3 – MAS

May 2019 – April 2022

Durum wheat

→ *Lr19*, *Sr25*, *Cdu1* & others (#Mario)



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WP2 Wheat

Task 2.4 – New wheat germplasm for organic farming

October 2019 – April 2023

Perennial wheat

→ UNITUS (durum) + RGA (wheat): crosses of *Triticum* with *Dasypyrum* & *Thinopyrum*

Cross composite populations

→ some already available at MTA

→ creation of new CCPs

WP2 Wheat

Task 2.4 – New wheat germplasm for organic farming

October 2019 – April 2023

Cross composite populations

→ legal regulation: at least 5 different parents

→ Year 1: A/B & C/D

→ Year 2: A/B//C/D

→ Year 3: A/B//C/D/3/E

MAGIC with 8 parents

A/B, C/D, E/F, G/H

A/B//C/D & E/F//G/H

A/B//C/D/3/E/F//G/H

3 Populations: WEST – EAST – DURUM



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